

WHAT IS CLAIMED IS:

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29. A tissue adhesive based on fibrinogen, said tissue adhesive comprising an admixed elastase inhibitor.

30. A tissue adhesive as set forth in claim 29, wherein said elastase inhibitor is selected from the group consisting of eglin, elastase- α 1-proteinase inhibitor, α 1-antiprotease, leukocyte protease inhibitor, elafin and mixtures thereof.

31. A tissue adhesive as set forth in claim 30, wherein said leukocyte protease inhibitor is provided as a leukocyte fraction.

32. A tissue adhesive as set forth in claim 31, wherein said leukocyte fraction is a granulocyte-derived fraction.

33. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive is comprised of human proteins.

34. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive is comprised of human blood proteins.

35. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive is comprised of human plasma proteins.

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36. A tissue adhesive as set forth in claim 29, wherein said elastase inhibitor is contained in an amount ratio of from 1:100 to 1:150,000, based on milligrams of fibrinogen.

37. A tissue adhesive as set forth in claim 29, wherein the amount of said elastase inhibitor to fibrogen in a ratio of from 1:500 to 1:110,000.

38. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive contains at least 10^{-6} U of elastase inhibitor per gram of fibrinogen.

39. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive contains from between 10^{-3} and 10 U of elastase inhibitor per gram of fibrinogen.

40. A tissue adhesive as set forth in claim 29, further comprising plasminogen in an amount of at least 0.0001 mg/mg of fibrinogen. *cf.*

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41. A tissue adhesive as set forth in claim 40, wherein said plasminogen is contained in an amount of at least 0.001 mg/mg of fibrinogen.

42. A tissue adhesive as set forth in claim 40, wherein said plasminogen is contained in an amount of more than 0.01 mg/mg of fibrinogen.

43. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive does not contain any plasminogen.

44. A tissue adhesive as set forth in claim 29, further comprising at least one of a plasmin inhibitor and a plasmin activator inhibitor.

45. A tissue adhesive as set forth in claim 44, wherein said at least one of said plasmin inhibitor and said plasmin activator inhibitor is selected from the group consisting of aprotinin, α_2 -macroglobulin, α_1 -antitrypsin, ϵ -aminocaproic acid, tranexamic acid and mixtures thereof. *cf.*

46. A tissue adhesive as set forth in claim 29, further comprising an antibiotic.

47. A tissue adhesive as set forth in claim 46, wherein said antibiotic is selected from the group consisting of aminoglycosides, betalactams, polypeptides, fosfomycin, tetracyclins and mixtures thereof. *sp.*

48. A tissue adhesive as set forth in claim 29, further comprising factor XIII.

49. A tissue adhesive as set forth in claim 48, wherein said factor XIII is contained in an amount of at least 0.001 U/mg of fibrinogen.

50. A tissue adhesive as set forth in claim 48, wherein said factor XIII is contained in an amount of at least 0.1 U/mg of fibrinogen.

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51. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive is free from kininogenic proteins.

52. A tissue adhesive as set forth in claim 29, further comprising a solid surface, said tissue adhesive being present as a fleece in combination with said solid surface. *SP.*

53. A tissue adhesive as set forth in claim 52, wherein said solid surface is selected from the group consisting of a collagen surface, a gelatin surface and a polysaccharide surface.

54. A tissue adhesive set forth in claim 29, wherein said tissue adhesive is resistant to lysis in an environment with high fibrinolytic activity for a period of time which is at least 10 hours.

55. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive is resistant to lysis in an environment with high fibrinolytic activity for a period of time which is at least 15 hours.

56. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive is lyophilized.

57. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive is present in solution.

58. A tissue adhesive as set forth in claim 57, wherein said solution is deep-frozen.

59. A tissue adhesive as set forth in claim 29, wherein said tissue adhesive is present in virus-inactivated form.

60. A tissue adhesive as set forth in claim 29, wherein said elastase inhibitor is of recombinant origin.

61. A tissue adhesive system comprising fibrinogen and an elastase inhibitor.

62. A tissue adhesive system as set forth in claim 61, further comprising a thrombin-containing component.

63. A tissue adhesive system as set forth in claim 62, wherein said thrombin-containing component further comprises calcium.

64. A tissue adhesive system comprising a fibrinogen component and an elastase-inhibitor-containing component.

65. A tissue adhesive system as set forth in claim 64, wherein said elastase-inhibitor-containing component contains thrombin.

66. A tissue adhesive system as set forth in claim 61, further comprising an application device for said at least one component. -?

67. A tissue adhesive system as set forth in claim 66, wherein said application device is a double-syringe system.

68. A tissue adhesive system as set forth in claim 64, further comprising an application device for said fibrinogen component and for said elastase-inhibitor containing component.

69. A tissue adhesive system as set forth in claim 68, wherein said application device is a double-syringe system.

70. A method for treating wounds or hemorrhages with high fibrinolytic activity in patients, comprising administering an effective dose of a tissue adhesive preparation containing fibrinogen and an elastase inhibitor.

72. A method for treating wounds or hemorrhages in patients, comprising administering an effective dose of a tissue adhesive containing fibrinogen and an elastase inhibitor by means of an application device.

Respectfully submitted,
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